

What Is Claimed Is:

1. A work fixing device comprising:
plurality of plates, on each plate of said plurality of plates a work with a ferromagnetic portion being mounted;
5 a transporter for endlessly connecting and circulating said plurality of plates;
a magnet fixed to said transporter, said magnet fixing the work, which is transported by the transporter, through magnetic force on each plate of said plurality of plates; and
10 a nonmagnetic clearance holder for separating the magnet and the work from each other at a predetermined interval.
2. The work fixing device as claimed in claim 1, wherein said plurality of plates are nonmagnetic, and said clearance holder is said plurality of plates themselves.
- 15 3. The work fixing device as claimed in claim 1, wherein said clearance holder includes a clearance between each plate of said plurality of plates and the magnet.
4. The work fixing device as claimed in claim 3, wherein a slider is inserted between each plate of said 20 plurality of plates and the magnet.
5. A work fixing device comprising:
plurality of plates, on each plate of said plurality of plates a work with a ferromagnetic portion being mounted, each plate of said plurality of plates having a nonmagnetic portion and magnetic portions at both ends of the nonmagnetic portion;
25 a transporter for endlessly connecting and circulating said plurality of plates;
a magnet fixed to said transporter, said magnet fixing the work, which is transported by the transporter, through magnetic force on each plate of said plurality of plates; and
a nonmagnetic clearance holder for separating the magnet and the work from each other at a predetermined interval.
- 30 6. The work fixing device as claimed in claim 5, wherein said magnet is accommodated in a C-shaped base having
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an opening at a position opposite to the nonmagnetic portion of each plate of said plurality of plates, and said nonmagnetic clearance holder includes a clearance between the C-shaped base and each plate of said plurality of plates.

5 7. The work fixing device as claimed in claim 6, wherein a slider is inserted between each plate of said plurality of plates and the magnet.

10 8. The work fixing device as claimed in claim 6, wherein in said C-shaped base including the opening is mounted a nonmagnetic magnet fixing member for fixing the magnet in the C-shaped base.

9. The work fixing device as claimed in claim 5, wherein said nonmagnetic portion of each plate of said plurality of plates is a space.

15 10. The work fixing device as claimed in claim 1, wherein said magnet is a permanent magnet.